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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/051,376	01/22/2002	Naoki Uchida	1417-379	6989

7590

08/28/2003

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EXAMINER

RODEE, CHRISTOPHER D

ART UNIT

PAPER NUMBER

1756

DATE MAILED: 08/28/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

72-6

**Office Action Summary**

Application No.

10/051,376

Applicant(s)

UCHIDA ET AL.

Examiner

Christopher D RoDe

Art Unit

1756

-- **Th MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

**A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.**

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1,4,6-15 and 17 is/are allowed.
- 6) ☒ Claim(s) 2,3 and 16 is/are rejected.
- 7) ☒ Claim(s) 5 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All   b) ☐ Some \* c) ☐ None of:  
1. ☒ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)                      4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)                      5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 6 .                      6) ☐ Other:

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 2, 3, and 16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The above noted claims are indefinite because material amounts of components are described as "usually" within certain weight ranges for the black magnetic iron oxide particles. It is unclear if the particles defined in the instant claims are required to have the respective components (e.g., metal oxide other than Fe in claim 2). It is possible that the claim is limiting some of the particles in the group of particles defined by the claims. That is, some majority of particles have the respective material amounts but not all. Because it is not clear how the claims are being limited, the claims are properly rejected as not particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

### ***Double Patenting***

Claim 5 is objected to under 37 CFR 1.75 as being a substantial duplicate of claim 17. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

***Allowable Subject Matter***

Claims 1, 4, 6-15, and 17 are allowed.

The following is a statement of reasons for the indication of allowable subject matter: the prior art of record does not disclose or suggest the claimed black magnetic iron oxide particles having the three phase structure specified.

Aoki *et al.* in US Patent 5,449,565 discloses magnetic composite iron oxide particles having a magnetite core, an intermediate layer composed of an oxide containing Fe and Co, and a cobalt ferrite outerlayer (Abstract, patent claim 8). The reference does not disclose the structure present in the instant claims having a three phase structure with the amounts of metal(s) other than Fe specified in the core portion and surface coat portion.

James *et al.* in US Patent 5,498,512 discloses magnetic particles having a ferrite core and a surface coating of tin oxide. The reference does not disclose the structure present in the instant claims having a three phase structure with the amounts of metal(s) other than Fe specified in the core portion and surface coat portion.

Misawa *et al.* in US Patent 6,383,637 discloses black magnetic iron oxide particles having a ferrite core with non-iron elements such as Mn, Ni, Zn, Cu, etc. and a surface layer formed by an oxidizing treatment. The claimed three phase structure with the intermediate layer is not disclosed or suggested by this reference.

EP 1063639 discloses magnetic composite particles having a magnetic core with amounts of Al within the scope of the instant claims (e.g., see ¶ [0021] & Table 1), but does not disclose the three-phase structure present in the instant claims.

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JP 63-061413 discloses a metallic three layer powder. This powder has a layer of Ni or Co on the powder surface, a magnetic core, and a diffusion prevention layer between the core and Ni or Co layer. The reference does not suggest the amounts of metals other than Fe present in the core and surface layer.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher D RoDee whose telephone number is 703 308-2465. The examiner can normally be reached on most weekdays from 6 to 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Huff can be reached on 703 308-2464. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703 308-0661.

cdr  
19 August 2003

  
**CHRISTOPHER RODEE**  
**PRIMARY EXAMINER**